

Application Serial No. 10/588,020
Reply to Office Action of September 8, 2008

PATENT
Docket: CU-4987

REMARKS

In the Office Action, dated September 8, 2008, the Examiner states that Claims 1-22 are pending, Claims 1-3 and 14-22 are rejected, and Claims 14-22 are objected to. By the present Amendment, Applicant amends the claims.

In the Office Action, Claims 4-13 are objected to for being in improper multiple dependent claim format, and Claims 18-20 are rejected as indefinite. The claims have been amended to remove the multiple dependencies, and to cancel Claims 18-20.

In the Office Action, Claims 1-3 and 14-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Galbraith (US 4,664,252). Claims 21 and 22 are rejected under 35 U.S.C. § 102(b) as being anticipated by Agnoff (US 6,209,702). The Applicant considers that the amendments to the claims overcome these rejections for the following reasons.

The phrase "at least one" in the second and fourth line of Claim 1 has been replaced with the phrase "a plurality of spaced apart". The phrase "spread about substantially the entire periphery of the shell/core" has been inserted in the line second and third line of Claim 1. Also, the term "formation" has been amended to "formations".

The phrase "spread about substantially the entire periphery of the shell/core" has also been inserted in the second line in Claim 14, the third line in Claim 15 and in the third line in Claim 16.

Although it has not been specifically mentioned in the specification, it can be reasonably inferred from Figures 2 to 5 and Figure 7 of the drawings that shell formations (32) and the core formations (40) are spread about substantially the entire periphery of the tubular sections of the shell (12) and of the core (14).

Claim 2 has been amended to delete the phrase "shell has a plurality of spaced axially extending inwardly projecting shell formations, and the core has a plurality of spaced axially extending outwardly projection core formations, with the", and further, the term "being" has been replaced with "are".

Further, the phrase "and an inner surface" has been inserted in Claim 15 to clarify that the projecting ribs are located on the inner surface of the shell.

Claims 21 and 22 have been amended to delete "/or" from the phrase "and/or". It is important at the outset to recognize that the present invention is concerned with an

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idler that is relative light in weight while having sufficient mechanical rigidity, and which further has suitable heat transfer characteristics.

Claim 1

Accordingly, Claim 1 has been amended to recognize that it is advantageous to have an idler (10) comprising a shell (12) with at least one core (14) within the shell (12), the shell (12) having a plurality of spaced inwardly projecting shell formations (32) spread out substantially the entire periphery of the shell (12), and the core (14) having a plurality of spaced outwardly projecting core formations (40) spread about substantially the entire periphery of the core (14).

Similar amendments have been made in Claims 14 to 16 to recognize this important feature of the present invention.

In contrast to the shell formations (32) and the core formations (40) being spread about substantially the entire periphery of the tubular sections of the shell (12) and of the core (14), Galbraith discloses an idler (28) comprising a core (28) having two outward projections (36) that engage the inward projections (34) of an inner core (26).

Furthermore, as pointed out in the fourth paragraph on page 6, the ribs (32) of the shell and the ribs (40) of the core (14), together with the tubular sections of the shell (12) and of the core (14), act as a reinforcing structure which strengthens the idler (10). This provides the idler (10) with high load carrying capabilities. Due to the rotational nature of an idler, this can only be achieved if the ribs are evenly spaced about the entire periphery of the idler, which is not disclosed in Galbraith.

Still further, the ribs (32) of the shell (12) taper outwardly along their length from an outer end (30) of the shell and inwardly along their height towards their free ends, while the ribs (40) of the core (14) taper only inwardly along their length from an outer end (46). This configuration results in spaces being formed between the outer walls of the ribs (32 and 40), through which air can pass to cool the idler (10). This has an improved cooling effect on the idler (10). In addition, as mentioned in the first paragraph on page 7, the ribs also facilitate cooling during the injection moulding process. Both these cooling depend on the ribs being spaced apart about substantially the entire periphery of the idler, which again is not disclosed in Galbraith.

Accordingly, it is submitted that the amended claims define aspects of the

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invention which are patentable in view of the Galbraith reference.

Claims 21 and 22

With regard Claims 21 and 22 the phrase "and/or" has been amended to read "and" in order to specify that the sealing arrangement (220) includes a centrifugal seal (222). Agnoff discloses an idler (10) a body (22), a shield (40) and a labyrinth seal (22) between the body (22) and the shield (40). However, this reference does not disclose the centrifugal seal (222) formed by a curved surface of the body (212).


Accordingly, it is submitted that claims 21 and 22 define aspects of the invention which are patentable in light of the Agnoff reference.

In light of the foregoing response, all the outstanding objections and rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

Respectfully submitted,

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Date



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